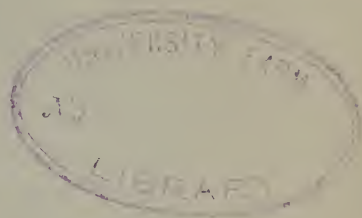


UNIVERSITY OF CALIFORNIA
COLLEGE OF AGRICULTURE
BERKELEY, CALIFORNIA

AGRICULTURAL EXPERIMENT STATION
E. J. WICKSON, DIRECTOR

CIRCULAR No. 45

(AUGUST, 1909.)



ANNOUNCEMENT OF FARMERS' SHORT COURSES FOR 1909

AT THE

UNIVERSITY FARM, DAVIS, CALIFORNIA

Dairy Manufacture.—Eight weeks. October 4th-November 24th.

Market Milk and Cream Supply.—Two weeks. October 11th-23rd.

Irrigation, Fertilizers, Field and Forage Crops.—Two weeks. October 11th-23rd.

Poultry Husbandry.—Two weeks. October 11th-23rd.

Animal Industry and Veterinary Science.—Three weeks. November 1st-19th.

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Farmer's Week.—October 25th-30th.

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BENJAMIN IDE WHEELER, Ph.D., LL.D., President of the University.

INSTRUCTING STAFF AND SUBJECTS.

E. J. WICKSON, M.A., Horticulture, Grasses and Forage Crops.
LEROY ANDERSON, M.S.A., Ph.D., Farm Management, Superintendent
University Farm Schools.
M. E. JAFFA, M.S., Poultry Husbandry, Nutrition.
C. W. WOODWORTH, M.S., Entomology.
R. E. SMITH, M.S., Plant Pathology.
G. W. SHAW, M.A., Ph.D., Cereals and Sugar Beets.
E. W. MAJOR, B.Agr., Animal Industry, Farm Manager.
F. T. BIOLETTI, M.S., Viticulture.
W. T. CLARKE, B.S., Horticulture.
B. A. ETCHEVERRY, B.S., Irrigation.
A. R. WARD, B.S.A., D.V.M., Bacteriology and Veterinary Science.
J. S. BURD, B.S., Fertilizers.
C. M. HARING, D.V.M., Veterinary Science.
H. A. HOPPER, M.S.A., Dairy Industry.
A. M. CLEGHORN, B.A., Principal School of Agriculture.
E. H. HAGEMAN, Dairy Industry.
R. E. MANSELL, Horticulture.
A. J. GAUMNITZ, B.S.A., Cereals.
R. M. ROBERTS, B.S.A., Farm Practice and Viticulture.
HOWARD PHILLIPS, B.S., Animal Industry.
ROSCOE FARRAR, B.S., Soils and Farm Crops.
L. M. DAVIS, B.S., Dairy Industry.
B. S. BROWN, B.S.A., Horticulture.
M. E. SHERWIN, B.S., Cereals.
S. H. BECKETT, B.S., Irrigation.
KATHARINE WINANS, B.S., Matron of Dormitory.

H. C. SHAW, Clerk.
J. T. RODGERS, Farm Foreman.
EMIL GRAUEL, Orchardist.
C. B. THIEBAUD, Engineer, Creamery.
LEO KLOEKLER, Assistant Buttermaker.
THOMAS WILSON, Gardener.
J. A. DENNY, Irrigation and Sugar Beets.
J. ALVARES, Stockman.

FARMERS' SHORT COURSES, FOR 1909.

UNIVERSITY FARM, DAVIS.

The first series of short courses offered by the College of Agriculture at the University Farm was held during October and November, 1908. The attendance was representative of the leading farming interests of California and included men and women of all ages and degrees of experience in their several lines of Agriculture. The total registration in all courses was 119, from which deducting ten, who enrolled in more than one course, leaves 109 persons who took advantage of the instruction.

Some changes are made in the short courses offered for 1909. The course in Poultry Husbandry will be increased from eight days to two weeks in length. With the exception of Dairy Manufacture all the other courses will be one week shorter than in 1908. It is expected, however, that fully as much instruction will be given, for the daily exercises will begin at eight o'clock instead of nine and continue until five in the afternoon, with the addition of more evening lectures.

A new course is added under the head of Market Milk and Cream Supply and will be for two weeks. It is designed especially for the dairy farmer who has a separator and sells milk or cream.

We believe the changes in the length of courses will be appreciated by the busy farmer, who cannot leave his work for a long time. Every day will be full of good things. The lectures will be boiled down and the practical exercises so arranged that the most possible good may be obtained in the short time. We have tried also to so arrange the courses that those who are able to remain longer may take two courses to their liking.

Another new feature is the addition of six days of general instruction and conference in agricultural topics designated as Farmer's Week. It begins Monday, October 25th, following the short courses in Poultry Husbandry, Irrigation and Forage Crops and Market Milk and Cream Supply. At the close of Farmer's Week the courses in Horticulture and Animal Industry begin. It is hoped that all who attend the short courses will be present during Farmer's Week. Every farmer in the State should be there. Read more about it on page 15.

The short courses are open to all persons who are at least

seventeen years of age. No entrance examinations will be given nor any requirement imposed except an earnest desire to make the best use of the opportunities offered by the State through its University.

This Circular, regarding instruction at the University Farm, is the third issued this season. The three are:

No. 43. The School of Agriculture.

No. 44. Opportunities for Instruction in Dairy Industry.

No. 45. Farmer's Short Courses.

Copies of these circulars will be mailed free to all who inquire. All questions will be gladly answered, and correspondence concerning the different courses is invited.

LEROY ANDERSON,
Superintendent University Farm Schools,
Davis, California.

THE UNIVERSITY FARM.

An act of the Legislature of 1905 created a Commission to select, and provided money to purchase, a farm for the University of California, to be called the University Farm, and to be used through the College of Agriculture for conducting experiments and for giving instruction to students in agriculture. The Commission finally selected a farm of 780 acres of fine valley land near Davis, in Yolo County, and it was purchased in 1906. Davis is thirteen miles west of Sacramento, and ten miles south of Woodland; it is at the junction of two branches of the Southern Pacific railroad, one leading into Oregon, the other to the East. The Farm adjoins the town on the west, and lies along the north bank of Putah Creek.

Various divisions of the College of Agriculture and Agricultural Experiment Station are using portions of the Farm for experimental purposes and to grow feed for stock. The divisions of horticulture and viticulture have fifty acres planted or to be planted to trees and vines: the division of animal industry has eighty acres seeded to alfalfa and twenty acres more under preparation, also several acres in maize and stock beets. Under a special State appropriation, cereal investigations are conducted upon about fifty acres. The U. S. Department of Agriculture is conducting irrigation investigations upon thirty acres, in methods of applying water. On several smaller areas, eucalyptus trees are planted, variety tests of maize are under way, and Egyptian corn and other summer crops grown. The larger part of the Farm is in hay and grain and is used experimentally as the needs require.

Buildings and equipment.

For purposes of instruction in agriculture several buildings have been erected on the Farm since its purchase, and others will be added as the need arises and funds are available. The Creamery is a two-story building 60×80 and has rooms for separating, churning, and cheese making. A forty-horsepower boiler furnishes steam for heating, and for power to operate the creamery machinery and the eight-ton refrigerating machine. On the second floor are two class-rooms, a laboratory and four offices. This building is for the present the administrative center of the Farm and the School.

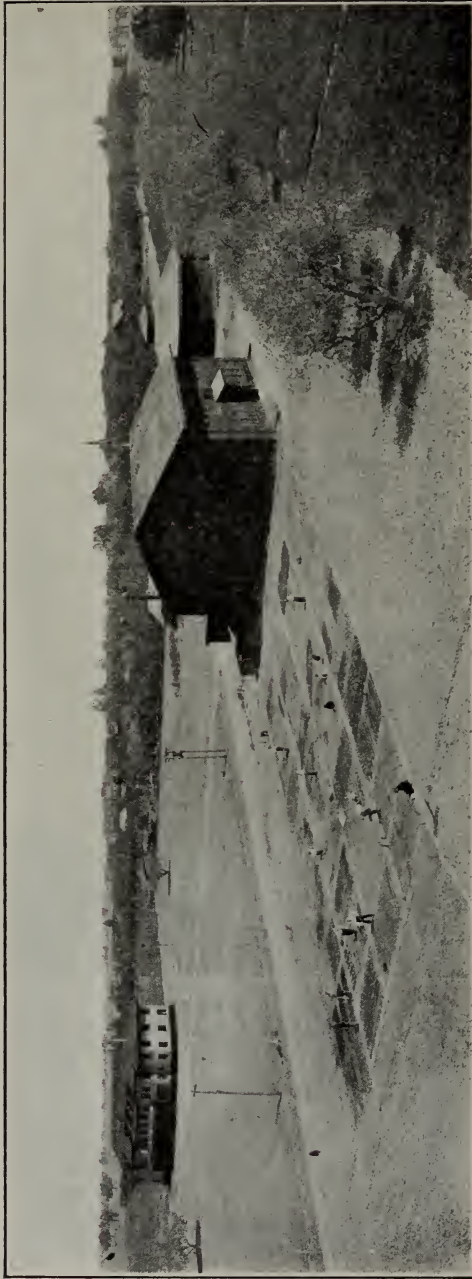
The Pavilion is a one-story octagon-shaped building 60×80 . It serves as a place for stock-judging and also as an auditorium for general meetings. The seating capacity is about 500.

The Dairy barn consists of a main hay and feed portion 41×166 and two wings at right angles thereto each 41×105 . The east wing has stanchions for fifty-two cows, while the west wing has small stanchions for calves, and ten boxstalls for cows at calving and for bulls. The central part of the main barn is reserved for hay storage, while the ends are occupied with feed rooms, machine room, driveways, and three sleeping rooms for attendants. The barn has a concrete floor throughout with concrete gutters and mangers.

The Seed house is located on the cereal experiment tract, and is especially designed for the needs of that department. It is a one-story building 25×46 , and in addition to office and small seed room has three larger rooms; one a tool room, one for student laboratory and one for general work room.

The Dormitory is a two and one-half story building 36×150 , accommodating sixty students. It has also two suites consisting of sitting-room, sleeping-room, and private bath. Every convenience in the way of bathing facilities, heating, lighting, large living-room and furnishings has been provided to make the life in the dormitory attractive and homelike.

A water and sewer system has been installed at a cost of about \$18,000. The domestic water supply is pumped from a deep well into a 30,000-gallon tank at an elevation of sixty feet. Six-inch pipes carry the water to all present buildings and on lines to supply many future buildings, and to fire-hydrants at necessary points. The disposal of sewage is by means of septic tanks from which it is pumped over an aerator and then applied to the land for irrigation. Six- and eight-inch sewer pipes lead from the buildings to the septic tank with concrete manholes at convenient intervals. This system has been



DORMITORY. DAIRY BUILDING AND PAVILION. STUDENT GARDENS IN FOREGROUND. TOWN OF DAVIS IN BACKGROUND.

planned and constructed with extreme care, to the end that future occupants of the Farm and attendants upon the Schools may be assured of sanitary surroundings.

New Buildings.

During the summer of 1909 several buildings will be added to the present equipment of the Farm. A dining-hall and kitchen will be built near the dormitory. The dining-room will be large enough to accommodate 125 boarders; and its plan will allow it to be greatly enlarged as the number of students at the Farm increases. The kitchen will be thoroughly up-to-date, with refrigerating-room, store-rooms, and laundry adjoining. On the second floor, over the dining-room, will be several sleeping-rooms.

In addition to the dining-hall the following buildings are soon to be erected: A horticulture building, fully equipped with laboratories, greenhouses, class-rooms, and a large assembly hall; a horse barn and buildings for swine and sheep to be added to the equipment of the division of animal industry; an addition to the seed house which will more than double the storage capacity and permit all of the present building to be used for laboratory purposes; a veterinary clinic consisting of lecture, anatomy, office, and laboratory rooms and stable; and several poultry houses.

CALENDAR OF SHORT COURSES.

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Farmer's Week.—October 25th-30th.

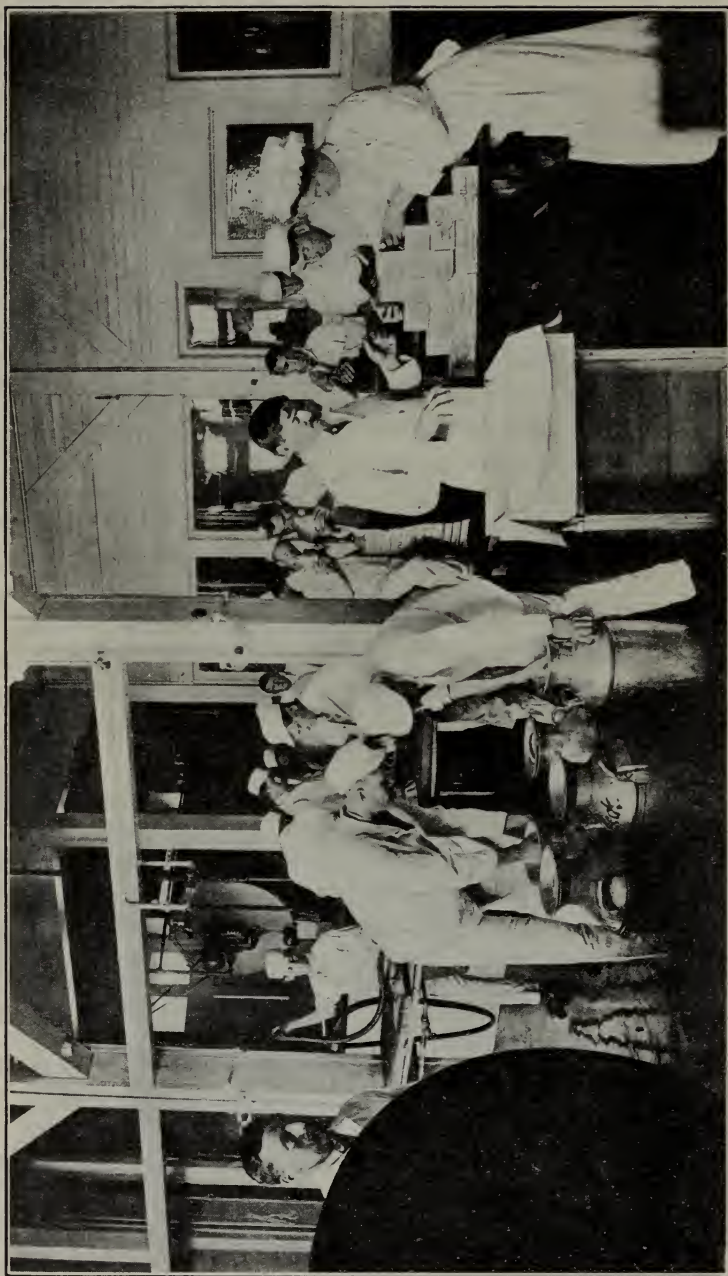
DAIRY MANUFACTURES—EIGHT WEEKS.

OCTOBER 4TH-NOVEMBER 24TH.

For creamery butter makers and cheese makers.

Object.—To give practical instruction in the principles underlying clean milk production and the manufacture therefrom of butter and cheese and to afford an opportunity of making and handling these products under the instruction of successful operators.

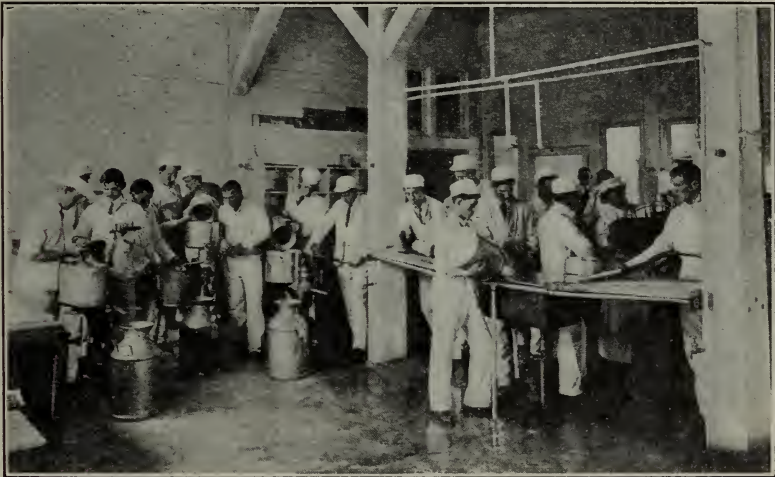
Instructors.—Assistant Professor Hopper, Dr. Ward, Mr. Davis, Mr. Hagemann, and others.



CUTTING, WRAPPING, AND PACKING UNIVERSITY FARM BUTTER.

Lectures on the secretion, composition and handling of milk; fermentations in milk and their control; testing milk, cream, and other products for butter fat; separation of cream, cream ripening, pasteurization and the use of starters; churning, control of and tests for water in butter; dairy bacteriology, cheese making, curing, creamery accounting, etc.; steam engines, boilers, motors, pumps, etc., and many other subjects of vital interest to all who aim to become successful creamery operators.

Two lectures daily for eight weeks. Practice in the separating room, churning room, cheese rooms, milk testing laboratory, bacteriology laboratory and with machinery; 4-6 hours daily, including Saturday.



THE HAND SEPARATOR PLAYS AN IMPORTANT PART IN OUR DAIRY INDUSTRY.

THE STUDENT STUDIES ALL TYPES OF MACHINES DURING HIS COURSE.

During this course the sixth and last entry for the current year of the Educational Butter Scoring Contest will be scored at the dairy school and premiums awarded.

It is recommended that those registering in this course shall have had some creamery or dairy experience.

MARKET MILK AND CREAM SUPPLY—TWO WEEKS.

OCTOBER 11TH-23RD.

For milk dealers and creamery patrons.

Object.—To give practical instruction in the most approved methods of handling milk or cream for creamery purposes or for direct consumption.

Instructors.—Assistant Professor Hopper, Dr. Ward, Mr. Davis, Mr. Hagemann, and others.

Lectures upon the secretion of milk, its composition and the influences affecting same. Requirements for handling milk and cream for market or dairy purposes. Testing milk and cream for butter fat, acidity or adulterations. Practice in running hand separators, bottling, standardizing and pasteurizing milk or cream for market.

Two or three lectures daily. Practice in milk testing, laboratory and market milk-rooms. 4-6 hours daily.

For instruction in milk testing, short-course students must register in one of the above courses.



IRRIGATION CLASS.

IRRIGATION, FERTILIZERS, FIELD AND FORAGE CROPS—TWO WEEKS.

MONDAY, OCTOBER 11TH-SATURDAY, OCTOBER 23RD.

Irrigation. Assistant Professor ETCHEVERRY and Mr. BECKETT.

Explanation of principles and construction of levels and level rods. Practice with levels and rods. Staking out work, calculating quantities and keeping notes.

Preparation of land for irrigation. Description of tools used in digging laterals and grading land. Different methods of applying water. Measurement of water and computation by means of meters, weirs, floats, etc.

First week, 3 lectures and 5 hours field work daily.

Grasses and Forage Crops.

Professor WICKSON.

A discussion of the various lands available for pasturage and forage purposes in California; of the policies which yield best results, and the culture of grasses and other forage plants which have shown special adaptation to California conditions under rainfall or irrigation.

Farmer's week, 1 lecture daily.

Fertilizers.

Assistant Professor BURD.

The nature of fertilizers and their relation to plants and soils.

Second week, 1 lecture daily.



HARVESTING ALFALFA.

Sugar Beets and Cereals.

Associate Professor SHAW,

Mr. GAUMNITZ, Mr. SHERWIN, and Mr. DENNY.

Sugar beet culture. Soils and climates, selecting and testing seed, preparation of land, fertilizer and water requirements, cultivation and irrigation, conserving the fertility under beet culture.

Cereal production. Wheat, barley, and oats, types, distribution, and adaptability, grading grain as to quality and selection of seed. Corn, its structure and composition. Maintaining fertility under cereal culture.

Second week, 2 lectures daily and 4 hours field work.

POULTRY HUSBANDRY—TWO WEEKS.

MONDAY, OCTOBER 11TH—TUESDAY, OCTOBER 23RD.

Breeds and Management.

Professor JAFFA, Mrs. BASLEY, and Special Lecturers.

Study of breeds and breeding, feeding, care and management, incubators, and incubation, egg testing, housing, and judging poultry.

Four lectures daily and practice each afternoon.

Diseases of Poultry.

Dr. HARING and Special Lecturers.

Demonstration of methods of prevention and treatment of common troubles and infectious diseases of fowls, caponizing and other poultry surgery.



STOCK JUDGING.

ANIMAL INDUSTRY AND VETERINARY SCIENCE—THREE WEEKS.

MONDAY, NOVEMBER 1ST—SATURDAY, NOVEMBER 20TH.

Animal Industry.

Associate Professor MAJOR, Mr. PHILLIPS, and Special Lecturers.

First Week—Dairy Cattle. A course of lectures on the various breeds of dairy cattle; their selection, feeding, care and management:

special attention being given to the economical production of milk and butter fat; practice work in judging.

Care and Feeding of Dairy Stock. Lectures on the principles of feeding; raising and handling of forage crops; silos and silage; planning of dairy buildings.

Second Week—Beef Cattle, Sheep, and Swine. Lectures on market types, breeds and their handling, including a study of their origin, history, characteristics and adaptability to different conditions of soil and climate; practice work in judging.

Third Week—Horses and Mules. Lectures on the various breeds; their origin and history; feeding, care and handling, particular attention being given to the market types, with their characteristics and adaptability for different purposes; practice work in judging.

Veterinary Science.

Dr. HARING and Special Lecturers.

The prevention of animal diseases, care and treatment of sick animals, preparation of simple farm medicines, methods of restraint for animals during operations, and practical facts regarding the anatomy and physiology of domestic animals, illustrated by dissections of horses and cattle. A limited number of students will be privileged to perform minor surgical operations such as dehorning, spaying of cows, castrating, and veterinary dentistry.



ANATOMY OF THE HORSE.

Field work in tuberculin testing and vaccinating will be possible for all in the course. The work will be so arranged that special attention will be given the first week to dairy cattle, the second week to beef cattle and hogs, the third week to horses and mules.

HORTICULTURE, VITICULTURE, AND ENTOMOLOGY—TWO WEEKS.

MONDAY, NOVEMBER 1ST-SATURDAY, NOVEMBER 13TH.

Horticulture and Viticulture.

Professor WICKSON,

Assistant Professor CLARKE, and Special Lecturers.

A lecture and demonstration course covering the planting, care and management of orchards and vineyards. So far as the season and material at hand permit, the student will perform the various operations connected with the establishment and maintenance of orchards and vineyards. Considerable attention will be given to the commercial side of orchard and vineyard operations, methods of disposition of the crop, and similar topics. Bench grafting and similar operations will receive much attention.



RAISIN MAKING.

Entomology.

Associate Professor WOODWORTH,
Mr. MORRIS, Mr. VOLCK, and Mr. HUNTER.

A series of practical lectures and demonstrations illustrating and discussing the problems of insect control, including the following subjects: codling moth, peach moth, potato moth, corn worm, cutworms, grasshoppers, vinehoppers, cabbage aphid, melon aphid, apple-leaf aphids, woolly aphid, phylloxera, San Jose scale, red and yellow scale, black scale, brown apricot scale, white fly, fruit thrips, red spiders, etc. Also a detailed discussion of arsenical sprays, distillate emulsions, lime sulfur mixture, and cyanide fumigation.

Excursions to nearby packing houses, orchards, and vineyards will be arranged for Saturdays during the continuance of these courses. Students will thus be enabled to observe methods under the most favorable conditions. Reading rooms will be available, and illustrated lectures covering various phases of orchard work will profitably occupy certain evenings while these courses are in progress.

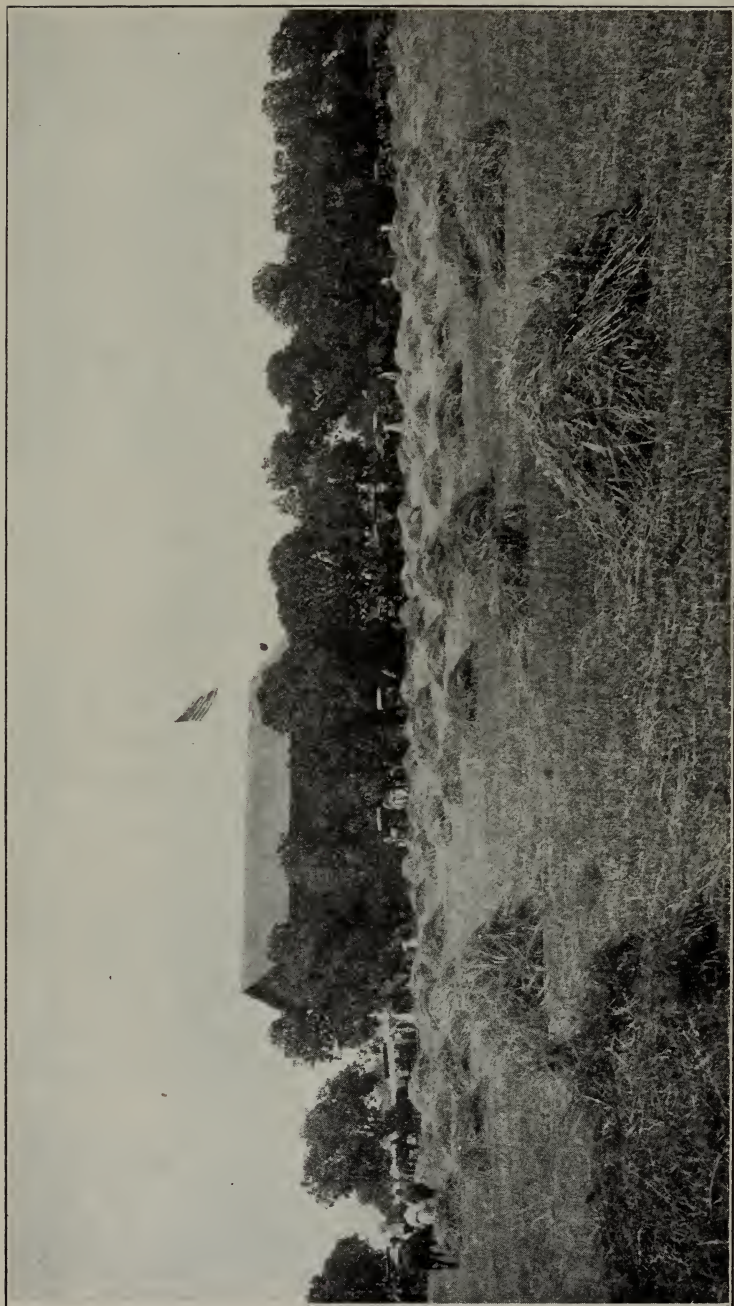
FARMER'S WEEK.

MONDAY, OCTOBER 25TH-SATURDAY, OCTOBER 30TH.

One of the most helpful of modern methods in the development of short courses is several days of instruction in all branches of agriculture so concentrated and digested as to eliminate the element of time which is often a barrier between the farmer and his ability to take advantage of courses in the agricultural college. The farmers are few who cannot be away from home for a week, and this week is to be so attractive that even these few will be impelled to come.

The lectures and demonstrations by the agricultural faculty are to be definite and pointed, striking at the very heart and meat of the subject and of the needs of California agriculture. The addresses by public men will be rich in fact and give the hearers food for thought for a year to come. The conferences and associations will bring together men and women prominent in the betterment of agriculture and of country life throughout the state.

Among the prominent men of the State who have signified their intention to be present are Governor J. N. Gillett, Professor E. J. Wickson, Dean of the College of Agriculture; Professor I. P. Roberts, Palo Alto; Judge Peter J. Shields of Sacramento, Hon. H. A. Jastro, President State Agricultural Society, and Hon. J. W. Jeffrey, State Commissioner of Horticulture.



UNIVERSITY FARM ON A PICNIC DAY, MAY 22, 1909.

Members of the staff of the College of Agriculture and others will discuss many important topics such as Field and Forage Crops, Improvement of Cereals, Soil Fertility, Live Stock Management and Judging, Orchards and Fruits, Plant Diseases, Animal Diseases, Foods and Nutrition, Care and Handling Dairy Products, Irrigation, Sugar Beets, Poultry Keeping, and Agricultural Education.

It is expected that several Associations will hold conventions at the University Farm during Farmer's Week. The University Farm Students' Association, Farmers' Institute Workers, Sacramento Valley Development Association, and California Live Stock Breeders' Association are among those which have already been suggested as holding their meeting at that time.

A detailed programme of the week will be issued during the latter part of September and mailed to all who may request. Ample notice of the week will also be given in the Press of the State.

SCHEDULE OF EXERCISES.

In most courses the forenoons from 8 to 12 o'clock will be given up to lectures, recitations, and conferences. The afternoons will be occupied with field or laboratory work, beginning at 1 o'clock and continuing for three or four hours. Saturday morning will likewise be used for field work.

In dairy manufacture the work will begin at 8 o'clock with two hours of lectures and continue until the day's duties are completed.

Lectures of general interest may be expected one or two evenings of each week and in some instances these will be illustrated.

Registration for each course will take place in the Superintendent's office during the forenoon of the first day of each course. The fee is then paid and cards for the course issued. Instruction begins at 1 o'clock of the same day.

Board and room may be obtained in Davis at from twenty to twenty-five dollars per month or from six to seven dollars per week. Private families open their homes generally for short-course students and one hundred persons can be readily accommodated in addition to the usual number at hotels.

A small fee is charged each student to cover cost of materials used upon a basis of one dollar per week except in Dairy Manufacture,

where the cost is a little more. In the courses which include milk testing a deposit for breakage is also charged, but such portion as is not needed to pay for breakage is returned. The fees and deposits are as follows:

- Animal Industry and Veterinary Science, fee \$3.00.
- Dairy Manufacture, fee \$10.00, deposit \$5.00.
- Horticulture, fee \$2.00.
- Irrigation, Fertilizers and Field Crops, fee \$2.00.
- Market Milk and Cream Supply, fee \$2.00, deposit \$5.00.
- Poultry Husbandry, fee \$2.00.

Students in the dairy courses will be required to wear white muslin suits and caps when in the laboratories. The suit is one usually worn by painters and is inexpensive. Each student should provide himself with at least two suits.

Students in some of the other courses, especially Animal Industry, will need overalls and jumper.

The cost of the text and note books depends largely upon the desire of the individual. Text books are not required in any course except Dairy Manufacture.

REDUCED RAILROAD RATES TO THE SHORT COURSES.

The Southern Pacific and Santa Fe Railroad Companies will place in effect a rate of one and one-third lowest first-class fare per capita for the round trip on receipt-certificate plan, from all stations in California to Davis, tickets being on sale for going trip October first to November 24th and certificates to be honored for return at one-third fare (providing there are 50 or more delegates in attendance holding properly issued receipt-certificates), October 4th to November 26th, 1909.

Prospective attendants upon the Short Courses are advised by the railroad companies that if through any fault of their own they are unable to obtain benefit of the above reduced fare, the companies will not consider claims for refund.

These rates also apply to Farmer's Week, October 25th-30th.

SHORT-COURSE STUDENTS—UNIVERSITY FARM.

FALL OF 1908.

Animal Industry and Veterinary Science.

<i>Name</i>	<i>Address</i>	<i>Name</i>	<i>Address</i>
Alemedi, Antone S., San Francisco.		Hewlett, Palmer B., San Francisco.	
Berry, David M., Alameda.		Hill, Harry K., Willows.	
Coombe, D., Capetown.		Hunt, Robt. E., San Francisco.	
Dawson, John R., Benicia.		Johnson, Albert C., San Francisco.	
Decarli, John, Stockton.		Lane, Chas. E., Mt. View.	
Dewing, J. H., Walnut Creek.		Lang, August R., San Francisco.	
Dolcini, Valente, Guadalupe.		Metzger, J. E., Geyserville.	
Fabian, L., San Francisco.		Mighell, Jas. E., San Francisco.	
Feley, Amos J., San Francisco.		Miller, Frederick, Alameda.	
Fleutsch, P., Visalia.		O'Rourke, Mike J., San Francisco.	
Gibson, T. B., Woodland.		Ross, Willard J., San Francisco.	
Hanson, Peter, San Francisco.		Russell, Wm. O., Davis.	
Harlan, J. L., Woodland.		Smith, Luther F., Petaluma.	
Harrison, H. T., San Francisco.		Westfall, Chester J., Sycamore.	
Henry, Jas. A., Farmington.		Wright, Geo. M., Davis.	
Total, 30.			

Dairy Manufacture.

<i>Name</i>	<i>Address</i>	<i>Name</i>	<i>Address</i>
Alexander, James, Modesto.		Hyde, C. C., Davis.	
Bacianini, Victor, Suisun.		Jeffery, William, Salinas.	
Berg, J. A., San Francisco.		Johnson, George, San Francisco.	
Daniels, Fred, Alameda.		Kleokler, Leo, Ceres.	
Daniels, Mrs. Fred, Alameda.		Mini, Henry, Vallejo.	
Dawson, Jay P., San Luis Obispo.		Ostergard, Harold, Colusa.	
Fish, Theron P., Meridian.		Pfohl, Frank L., Dixon.	
Foltz, George M., Sacramento.		Rodgers, Douglass, Crows Landing.	
Griffith, George O., East Auburn.		Smith, J. Ward, Oakland.	
Haase, Fred G., Hanford.		Smitton, E. C., Crows Landing.	
Hickok, Leon F., Colusa.		Ward, Spencer, Escondido.	
Horner, Andrew G., Oakland.		Watkins, George E., Etna.	
Total, 24.			

Horticulture and Viticulture.

<i>Name</i>	<i>Address</i>	<i>Name</i>	<i>Address</i>
Allen, W. S., Lockford.		Johnson, Frank, San Gabriel.	
Anderson, John W., Davis.		Martin, William E., Monterey.	
Bell, Geoffrey, Fresno.		Newcomb, Walter I., Sebastopol.	
Brunson, Edward T., Auburn.		Nielsen, Emil T., Cupertino.	
Collins, Charles F., Dinuba.		Rodgers, Manuel S., Loomis.	
Cookson, James N., Coalinga.		Steiert, Emil, Sanger.	
Eaton, Edgar J., Lodi.		Stetson, Meriam, San Rafael.	
Fleutsch, Peter, Visalia.		Walton, L. W., Yuba City.	
Freed, C. V., Newcastle.		Weinnemann, W. C., Alameda.	
Hester, Thomas G., San Jose.		Widlund, F. O., Healdsburg.	
Holbrook, F. P., Fair Oaks.			
Total, 21.			

Irrigation, Soils, Forage Crops and Cereals.

<i>Name</i>	<i>Address</i>	<i>Name</i>	<i>Address</i>
Adams, R. L., Spreckels.		Magleby, Jacob, Utah.	
Decarli, John, Stockton.		Pillow, James H., Susanville.	
Fabian, Laurence, San Francisco.		Rodgers, S. S., Spreckels.	
Fleutsch, Peter, Visalia.		Sherwood, Stanley, Salinas.	
Hewlett, Palmer B., San Francisco.		Smith, Luther T., Sacramento.	
Johnson, Frank, San Gabriel.		Steiert, Emil, Sanger.	
Johnson, Mathis, Haywards.		Stetson, Meriam, San Rafael.	
Kwan, Denn Eh, Sacramento.		Walton, L. W., Yuba City.	
Mighell, James E., San Francisco.		Weinnemann, W. C., Alameda.	
Mini, Henry, Vallejo.		Wright, William M., Davis.	
Total, 20.			

Poultry Husbandry.

<i>Name</i>	<i>Address</i>	<i>Name</i>	<i>Address</i>
Anderson, Mrs. B. F., Modesto.		Hegi, Mrs. R., Dixon.	
Atwell, Mrs. S. V., Napa.		Hirao, Saburo, Sacramento.	
Bemis, Mrs. Charles C., East Oakland.		King, James F., Sycamore.	
Brown, R. J., Roseville.		Newcomb, Charles L., Jr., Glenn Ellen.	
Brunson, Bessie J., Auburn.		Pillow, James H., Susanville.	
Carlson, Charles J., San Francisco.		Postnikor, F., Martinez.	
Dawson, Mrs. Jay P., San Luis Obispo.		Russell, Mrs. W. O., Davis.	
Dawson, John R., Benicia.		Russell, Mrs. Lucy, Davis.	
Edwards, H. L., Santa Barbara.		Schmeiser, Miss E. F., Davis.	
Harrison, H. T., San Francisco.		Smith, Mrs. R. R., Stockton.	
Harvey, Dalton H., South Berkeley.		Warren, Wm. True, Warm Springs.	
Haussler, Mrs. M., Davis.		Weller, Laura E., Vallejo.	
Total, 24.			

Total in all courses	119
Deduct for names counted twice	10
Total	109

UNIVERSITY OF CALIFORNIA—COLLEGE OF AGRICULTURE

UNIVERSITY FARM, DAVIS, CALIFORNIA

SHORT COURSES IN AGRICULTURE 1909

APPLICATION FORM

Name in full

Permanent P. O. address

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Age

Name and address of parent or guardian (if under 21):

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Course desired

State farm or creamery experience

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Date of application

It will be helpful to us to know approximately the expected attendance upon the courses before their time of beginning and we thus ask all to fill out and mail the above application as soon as the decision to attend is reached. Address: Superintendent of University Farm Schools, Davis, California.

